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EUROPEAN PATENT APPLICATION

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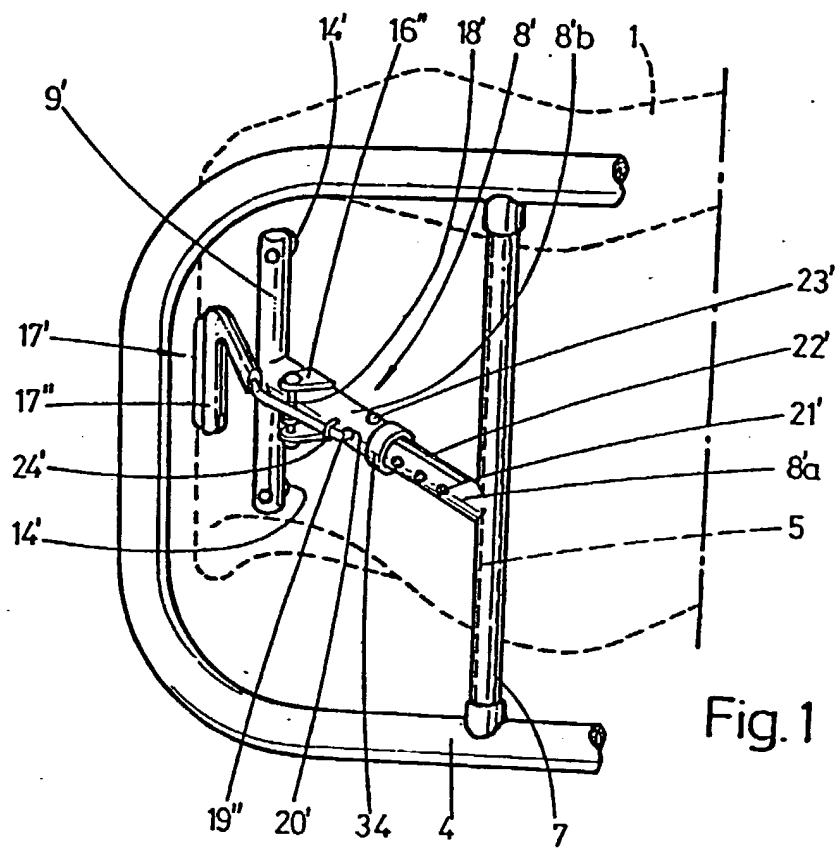
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(54) **Tiltable child's seat**

(57) Comprising a base frame (4) with which there is pivotally associated the seat(1) by way of a mechanism which locks different tilting positions thereof. This mechanism characterized by two transverse shafts (7 and 9') linked together with a single telescopic column (8') which in its outer member (8'b) fixedly carries the locking control lever (17') of the positions of the seat(1), being this lever terminated at one of its ends in a pin (19') selectively inserted in one of the orifices (20') shown along the inner member (8'a) of the telescopic column(8'). The upper transverse shaft (9') is fixed to the seat (1) with dampening resilient bushings(14') and between the two telescopic members (8'a and 8'b) a selflubricating bushing (34) is arranged for a good and noiseless sliding of said members.

EP 0 478 490 A1



This invention relates to a tiltable child's seat.

Several types of child's seats for this purpose are known fixed by belts to the rear seat of the motor vehicles, these child's seats comprising a base frame and the seat as such being related to said frame by a mechanism determining and locking the selected seat tilting.

In the Spanish Patent no. P8903881 of the same applicant, this mechanism essentially comprises two paralleled transverse shafts respectively fitted below the seat and on the base frame, these two shafts being associated together by two telescopic columns which in their greater or lesser extent are determining whether the seat is more or less tilted, the seat being pivoted by its rear sides at points placed at the respective upper and rear extensions of the base frame sides.

In the Certificate of Addition no. P8904053 to this Spanish Patent the locking means of the extensions in the telescopic columns are formed by a lever pivoted between the outer members of said two columns, which lever is provided at one of the ends thereof with two pins selectively inserted in the orifices provided along the associated inner members of the two telescopic columns, which lever is pushed by resilient means towards its active locking position.

The object of the present invention is to simplify the arrangement of this locking mechanism by further providing it with dampening means and other means to facilitate the noiseless sliding between the two metal members of the telescopic column.

To this end, one of the two telescopic columns has been suppressed and the two transverse shafts are associated to a single central telescopic column sufficiently rugged and strong, the pivoted lever being fitted on the column outer member, this lever being provided at one of its ends with the pin selectively inserted in the orifices of the inner member of the telescopic column.

The upper transverse shaft is fixed to the seat by means of resilient bushings with a dampening function and between the two telescopic members is arranged a selflubricating bushing for a perfect sliding between said two members.

These and other features will be better understood from the following detailed description, to facilitate which there is attached a drawing sheet in which a practical embodiment only by way of a non-exhaustive example of the scope of the invention has been shown.

In the drawings:

Figure 1 is a perspective view of the front portion of the seat seen from below, and

Figure 2 is a side view of the seat.

According to such figures, the child's seat comprises an integral unit 1 constituting the seat as such, being the seat pivoted at its lateral points 2 with the ends 3 of a U-shaped tubular base frame 4 show-

ing two transverse shafts 5 between its side members.

The transverse shaft 5 of the base frame is inserted in a freely rotatable tubular sheath 7 to which the inner member 8'a of a telescopic column 8' is centrally fixed, being the outer member 8'b fixedly attached to a transverse tube 9' paralleled to the former tubular sheath 7 and fixed by its ends below the lower front portion of the seat by means of two resilient bushings 14' performing as dampers.

On the outer member 8'b of the telescopic column, two lugs 16" are fixedly attached between which is being pivoted a locking and unlocking lever 17' for the positions of the seat 1, the lever arranged with a straight rod is fixedly attached to a shaft 18' playing on respective perforations of said lugs 16", this rod is terminated at one end in a pin 19" which is inserted in an orifice 20' of the outer member 8'b and selectively penetrates in one of several orifices 21' provided along the inner member 8'a of the telescopic column.

This member longitudinally comprises an inlaid slit or slot 22' wherein the inner end of a rivet 23' fixed to the outer member 8'b plays therein and is performing as abutment to prevent any uncoupling in the extension of the telescopic members.

Between these two members 8'a and 8'b is arranged a selflubricating bushing 14, such as nylon to determine the perfect adjustment between said members and its smooth and noiseless sliding.

The locking of the several positions of the seat 1 by operation of the lever 17' ending in a control handle 17" is ensured by one spring 24' coiled to the shaft 18', being the extended ends of the spring respectively applied against the front portion of the lever 17' and against the member 8'b as such.

Although this mechanism is formed by metal members, it can also be manufactured with components of suitable plastic material, thereby simplifying still further its arrangement.

The references 31', 32 and 33 show guide members for the safety belts which will hold the child's seat on the front or rear seat of the automobile. The guide member 31' forms a single-piece clamp which in its opening is provided with the locking catch 35 pivoted between the clamp branches.

The present invention, within its essentiality can practically be carried out in other ways of embodiment differing only in detail from the one disclosed herein by way of example only, and to which other embodiments the protection sought herein will also be extended.

Claims

1.- A tiltable child's seat, comprising a base frame (4) and the seat (1) as such pivotally associated (2) together with a mechanism which is locking the different tilting positions of the seat and being arranged

with two transverse shafts linked together with two telescopic columns being lockable through its extension by any mechanical means, characterized in that the two transverse shafts (7 and 9') of the locking mechanism of the positions of the seat (1) are linked together with a single central telescopic column (8') sufficiently rugged and strong, the outer member (8'b) of said column comprising the assembly of the pivoted lever (17') which by one of its ends is forming the pin (19") selectively inserted in the orifices (20') provided along the inner member (8'a) of the telescopic column and in that the upper transverse shaft (9') is fixed to the seat (1) with resilient bushings (14') performing as a damper.

2.- A tiltable child's seat, according to claim 1, characterized in that between the two members (8'a and 8'b) of the telescopic column is arranged a self-lubricating bushing (34) to facilitate the noiseless sliding between said members.

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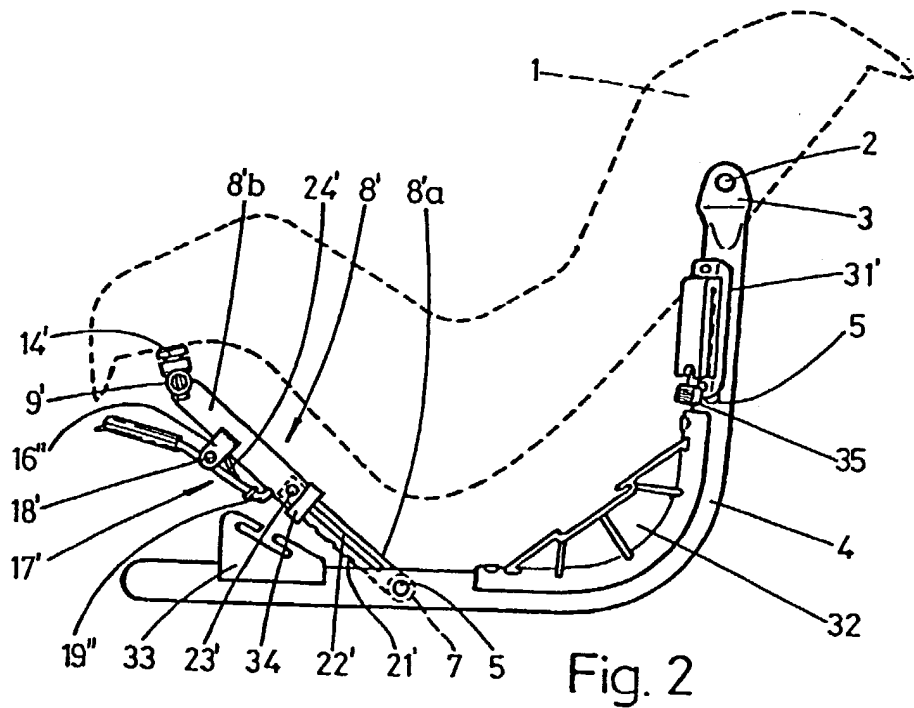
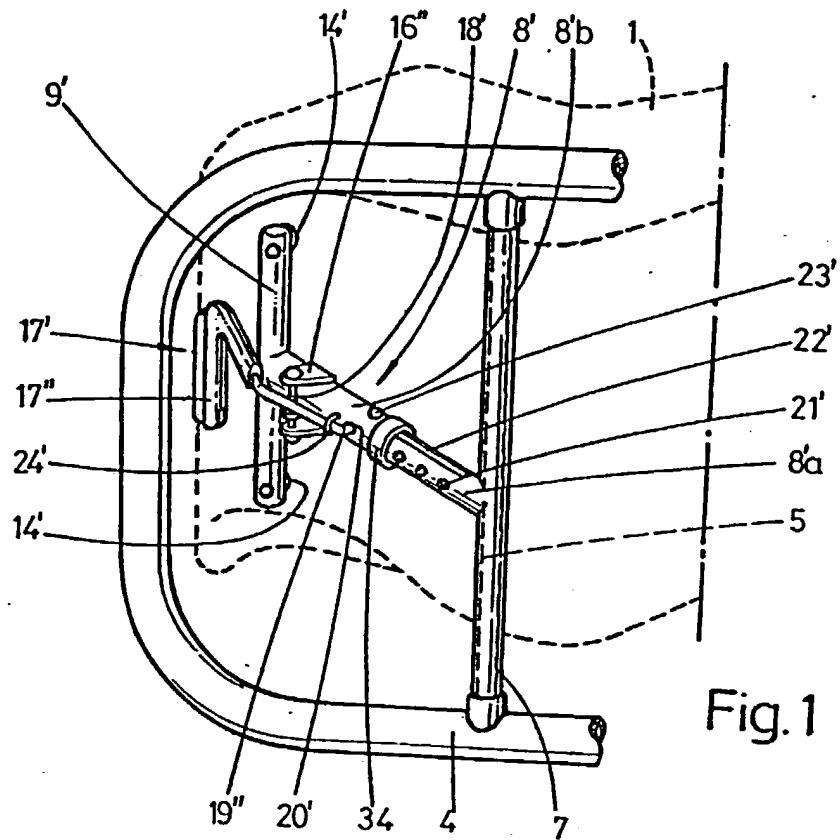
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European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 50 0107

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL.5)
A	DE-A-2 133 206 (EUBEL) * the whole document *	1	B60N2/28
A	US-A-4 215 900 (COULT) * column 3, line 48 - column 4, line 17; figures 1-11 *	1	
A	GB-A-2 159 401 (KASSAT)		
A	BE-A-763 181 (HERLAG)		
A	DE-A-2 650 182 (WEGNER)		
A, D, P	EP-A-0 424 303 (PLAY) * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (Int. CL.5)
			B60N A47C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 DECEMBER 1991	Examiner HORVATH R.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone V : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document</p>			

EPO FORM L503 03.92 (P0401)

DERWENT- 1992-106810**ACC-NO:****DERWENT- 199623****WEEK:*****COPYRIGHT 1999 DERWENT INFORMATION LTD*****TITLE: Tiltable child's seat - has transverse shaft linked together
with telescopic column and outer member carrying control
lever**

Basic Abstract Text - ABTX (2):

The outer member (8'b) of the column comprises the assembly of the pivoted lever (17') which by one of its ends is forming the pin (19'') selectively inserted in the orifices (20') provided along the inner member (8'a) of the telescopic column and in that the upper transverse shaft (9') is fixed to the seat (1) with resilient bushings (14') performing as a damper. Between the two members (8'a and 8'b) of the telescopic column is arranged a self-lubricating bushing (34) to facilitate the noiseless sliding between the members.